



**UNIVERSITY OF LINCOLN
JOB DESCRIPTION**

JOB TITLE	Post-Doctoral Research Associate in Crop Physiology				
DEPARTMENT	Lincoln Institute for Agri-Food Technology				
LOCATION	Lincoln Campuses				
JOB NUMBER	CHS059	GRADE	7	DATE	November 2023
REPORTS TO	Senior Lecturer in Crop Science				

CONTEXT

The University of Lincoln is working towards an exciting project together with Australian partners (Australian National University and University of Sydney) and Rutherford Appleton Laboratory (RAL, UK) using remote sensing techniques to determine nitrogen use efficiency (NUE) and associated canopy photosynthetic potential in wheat. The project seeks to find ways to improve nitrogen use efficiency without loss of yield in contrasting environments. The research objective is to develop a novel high throughput hyperspectral analysis technique that will extract meaningful data from leaves and canopies obtained from leaf clip-on sensors, camera mounted on drones and satellite earth observation. Data collection from multiple field trials in UK and Australia will be essential to develop the technique. You will be expected to have experience in wheat field trials data collection and familiarity using leaf clip-on sensor of hyperspectral leaf reflectance and gas exchange photosynthesis measurements is essential.

JOB PURPOSE

The Post-Doctoral Research Associate is responsible for conducting research on the project, as directed by the Principal Investigator, and is expected to operate with a significant degree of autonomy. They are not expected to operate as an independent researcher.

The post holder may be required to help supervise the work of more junior researchers.

KEY RESPONSIBILITIES

Literature Surveys

Undertake literature surveys and other investigations of the state-of-the-art, and prepare reports as required.

Programme of Research

Undertake a programme of research under the direction of the Principal Investigator, demonstrating a significant level of autonomy.

Lead in the production of high quality research outputs, including reports, papers and other publications of national/international standing.

Project Management

Perform project management activities, planning, scheduling, monitoring and reporting on progress of research projects.

Liaison and Networking

Identify and liaise with internal and external collaborators, and with colleagues in the Department, maintaining positive and effective working relationships.

Internal Research Activities

Participate in and help to organise internal research activities, including seminars, research meetings and conferences.

Continuous Professional Development

Undertake continuous professional development activities.

Grant Applications

Contribute to the production of grant applications.

Teaching Support

Engage in teaching support activities, up to a maximum of six hours per week, possibly including leading a small number of units (no more than two per annum).

Aid in the supervision of postgraduate research students.

In addition to the above, undertake such duties as may reasonably be requested and that are commensurate with the nature and grade of the post.

ADDITIONAL INFORMATION

Scope and dimensions of the role

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Key working relationships/networks

Internal	External
<ul style="list-style-type: none">• Principal Investigator• Head of Research Centre• Head of School• Other research and academic staff within the school	<ul style="list-style-type: none">• Research collaborators• Sponsors and clients



**UNIVERSITY OF LINCOLN
PERSON SPECIFICATION**

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Selection Criteria	Essential (E) or Desirable (D)	Where Evidenced Application (A) Interview (I) Presentation (P) References (R)
Qualifications:		
PhD or equivalent (good candidates may be accepted with a PhD pending, subject to publication record) in crop science, agronomy or a related discipline	E	A
Extensive knowledge specific to project/area	E	A/I
Experience:		
Extensive experience of relevant research methods	E	A/I/P
Authorship of research outputs of national/international standing	E	A/I
Experience of research in specific project area	E	A/I/P
Teaching support	D	A/I
Experience in handling and analysing crop samples (preferably wheat or other cereals).	E	A/I/P
Experience in measuring soil, gases and other environmental variables	D	A/I/P
Experience in field trials, collecting crop, soil and environmental samples	E	A/I/P
Experience of working with multi-disciplined project teams including research institutions and industry	D	A/I
Skills and Knowledge:		
Ability to design, conduct and project manage original research in the subject area	E	A/I
Excellent written communication, including the ability to write reports and research outputs	E	A/I
Ability to prioritise own workload and work to specified deadlines under pressure	E	A/I
Ability to communicate complex subjects orally and through presentations	E	A/I
Skills specific to project/area	E	A/I
Competencies and Personal Attributes:		
Flexible approach to workload	E	I
Ability to work on own and as part of a team	E	I
Enthusiasm and commitment	E	I
Business Requirements:		
Ability to travel nationally possibly with occasional overnight stays	E	A/I

Essential Requirements are those, without which, a candidate would not be able to do the job. **Desirable Requirements** are those which would be useful for the post holder to possess and will be considered when more than one applicant meets the essential requirements.

Author	OG	APBP	AH
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